

has empowered and obliged to become the artificer of his own rank in the scale of beings by the improvable gift of improvable reason."—Ib. 496-7. And Lyell himself says, p. 498, "We cannot imagine this world to be a place of trial and discipline for any of the inferior animals, nor can any of them derive comfort and happiness from faith in a hereafter. To man alone is given this belief, so consonant to his reason, and so congenial to the religious sentiments implanted by nature in his soul; a doctrine which tends to raise him morally and intellectually in the scale of being, and the fruits of which are, therefore, most opposite in character to those which grow out of error and delusion."

The tendencies of the Authors now reviewed is the most unfriendly to that religious faith on which human welfare essentially depends; yet it is believed that good will result from the divulgence of their theories; but it will be because of their failure; because they will have compelled men to re-examine their faith upon the platform of Science, and thereby confirm their religion received by revelation. They will find in all truth an accord showing its source one; and in the constancy of nature the truthfulness of God. They will find that He who created ever rules His creation and compels it to obey His ordination. They will find that only man was made in likeness unto God, and that he was made to have dominion over all other living creatures. They will perceive that Science can erect no barrier between man and his immortal hopes; that the being of an immortal soul stands elevated above all other animated beings by a distinction that makes him but "a little lower than the angels," and a child of his "Father in Heaven"; a Father who condescends to commune with and be known of His children.

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*Stated Meeting, January 19, 1872.*

Present 20 members.

Vice-President Mr. FRALEY in the chair.

A letter of acknowledgment for Transactions XIV. 1. and Proceedings, 84, 85, was received from the Bureau des Longitudes, dated Observatoire Nationale de Paris, Dec. 1871.

Donations for the Library were received from the Observatories and Royal Academy at Turin, Signor Denza, the Revue Politique, and M. A. P. Hovelaque, of Paris, the London Nature, Dr. Freeke, of Dublin, the Montreal Natural History Society, the editors of Old and New, and the American Chemist, the College of Pharmacy, Franklin Institute and Acad-

emy of Natural Sciences of Philadelphia, the editors of the Medical Journal, News and Library, and Penn Monthly, Mr. Eli K. Price, the Secretary of the U. S. Treasury, the Department of the Interior, the Engineer Department, and the Librarian of Congress.

Mr. B. S. Lyman offered for publication, in the Transactions, a map of the Punjaub Oil region, with explanatory text. On motion, this paper was referred to a committee, consisting of Dr. Genth, Mr. Lesley and Dr. Horn.

Mr. Cope communicated the following paper on a new Testudinate from the chalk of Kansas.

*On a new Testudinate from the Chalk of Kansas.*

BY E. D. COPE.

(Read before the American Philosophical Society, Jan. 19, 1872.)

Associated with the remains of *Clidastes*, and other saurians, and at a distance of two or three hundred yards from the locality of the fossil *Protostega gigas*, were found some vertebræ of a Testudinate reptile, which approaches the type of *Trionyx* and *Chelydra*. It differs so strikingly from both, and from all others yet known, as to require notice, and as the parts preserved (caudal vertebræ) are those most likely to recur in a well-preserved state in strata of this age, I propose to establish a species and genus on them, to aid in the future identification of both strata and animal type.

The vertebræ have elongate centra concave below, and have well-developed diapophyses. A more anterior has transversely oval articular extremities; in another they are much less depressed. The former is the more anterior, being known as such by its larger diapophyses and much smaller articular surfaces for chevron bones; it appears probable, indeed, that this one has been without these appendages. It is, therefore, from the anterior part of the series, from no great distance behind the sacrum. Its position being thus determined, it may be described in detail as follows:

As observed, the centrum is elongate and depressed. The inferior surface at the cup is flat, but is arched upwards, descending again to the rim of the ball. The posterior two-thirds has a median groove, which terminates in a deep notch of the ball, which involves one-third of its vertical diameter, and widens backwards. The ball is transverse oval, and only moderately convex; near its upper margin a small deep pit interrupts its surface, having the appearance of an unusually large ligamentous insertion; its border slightly excavates the margin of the ball. The cup is a transverse oval, wider below. Its inferior and superior margins are so deeply (but openly) emarginate, as to reduce the concavity in the vertical direction very much. From the superior emargina-